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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,537	09/15/2003	Raita Doi	040894-5955	8035
9629	7590	11/03/2005	EXAMINER	
MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004			TAWFIK, SAMEH	
			ART UNIT	PAPER NUMBER
			3721	

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

6

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/661,537	DOI, RAITA	
	<b>Examiner</b>	<b>Art Unit</b>	
	Sameh H. Tawfik	3721	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 September 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 12-15, 17 and 22-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11, 16, 18-21 and 31-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Election/Restrictions*

This application contains claims 12-15, 17, and 22-30 drawn to an invention nonelected with traverse in Paper No. 03052004. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-10, 16, 18-21, and 31-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Viens (5,554,094).

Viens discloses a sheet folding apparatus comprising a sheet folding unit which applies at least letter folding on a sheet (Figs. 1, 2-4, 5A, 5B, and 6A); a folding mode selecting device which selectively causes the sheet folding unit to operate in a letter folding shape (Figs. 1-4; column 4, lines 40-44 and 61-64; via the different types folds accomplished by folding apparatus 12); wherein one of a plurality of folding modes is applied on the sheet as the sheet proceeds along a single sheet path (Figs. 5B, 6B, 7B; via same stations for all different modes 5a, 5b, 6a, 6b, 7a, and 7b).

Regarding claim 2: further comprising a control device which controls the sheet folding unit in accordance with a folding mode selected by the folding mode selecting device (column 4,

Art Unit: 3721

lines 24, 25, and 31-36) via the computer processing unit monitor each document 18 as it proceeds through the system and as shown in Figs. 2-4 document 18 in C fold, Z fold, or half fold done by the folding apparatus 12 as shown in Fig. 5A.

Regarding claim 3: wherein the letter folding includes at least one of letter C-folding (Fig. 3) and letter Z-folding (Fig. 2), and see for example (column 2, lines 21-23).

Regarding claim 4: wherein the sheet folding unit (12) comprises a plurality of folding mechanisms in a sheet path (Figs. 5A and 5B).

Regarding claim 5: wherein at least one of the folding mechanisms comprises a folding position changing mechanism which can change a sheet folding position (Figs. 5A; via adjustable stoop 74 and 86).

Regarding claim 6: wherein among the folding mechanisms an upstream folding mechanism comprises a skew correcting mechanism which applies skew correction on the sheet (Figs. 5A and 5e) via when the sheets stop by the adjustable stop 86 will cause the sheet to curve and fold as shown in Fig. 5e.

Regarding claim 7: wherein at least one of the folding mechanisms comprises a folding member which is disposed in a sheet path to nip-transport the sheet (Fig. 5A; via 80 and 90); a transport member (Fig. 5A; via in-feed device 42, 60, 62 and nip 76) which is disposed in the sheet path upstream from the folding member (80 and 90) to nip-transport the sheet; and a tip end guide member (via adjustable stop 86) which is disposed in the sheet path upstream from the folding member (80 and 90) to restrict a position of a tip end of the sheet.

Art Unit: 3721

Regarding claim 8: wherein the folding mechanism comprises a folding position changing mechanism which moves the tip end guide member (86) that is movable, to enable a sheet folding position to be changed (Fig. 5B).

Regarding claim 9: wherein in the folding mechanism (80 and 90) a skew correcting mechanism which applies skew correction on the sheet configured by the transport member which can perform nipping (via 76) and releasing operations, and the tip end guide member (86), see for example (Figs. 5A and 5e).

Regarding claim 10: wherein after tip end of the sheet butts against the tip end guide member (86), the skew correcting mechanism causes the transport member (76) to transport the sheet by a short distance to form a loop on a side of the tip end of the sheet (Fig. 5e) and thereafter causes the transport member to perform the releasing operation (Figs. 5A and 5e; via to allow the sheets to go through the folding mechanism 80 and 90).

Regarding claim 18: further comprising a sheet folding postprocessing apparatus (Fig. 5A; via 12) which applies a predetermined postprocess on a sheet that has been subjected to a folding process by the sheet folding apparatus, see for example (Figs. 1 and 5A).

Regarding claim 19: further comprising a control device which controls at least the sheet folding apparatus and the sheet folding postprocessing apparatus in accordance with a postprocessing mode applied on the sheet (column 4, lines 24, 25, and 31-36) via the computer processing unit monitor each document 18 as it proceeds through the system and as shown in Figs. 2-4 document 18 in C fold, Z fold, or half fold done by the folding apparatus 12 as shown in Fig. 5A.

Regarding claim 20: wherein the control device houses a letter-folded sheet into a sheet accommodating device in the sheet folding apparatus, under conditions of performing a letter folding process on the sheet by the sheet folding apparatus (Figs. 2-4, 5A, and 5B).

Regarding claim 21: wherein the control device guides a folded sheet to the sheet folding postprocessing apparatus, under conditions of performing Z-folding (Fig. 2) other than letter folding on the sheet by the sheet folding apparatus (Fig. 5A).

Regarding claim 31: wherein the plurality of modes of folding include letter C-folding, letter Z-folding and size A3 Z-folding (Figs. 5B, 6B, and 7B).

Regarding claim 32: wherein the sheet folding unit includes a plurality of folding mechanisms in the sheet path, at least one of the folding mechanisms includes a folding member (Fig. 5A; via roller 80 and 90) which is disposed in the sheet path to nip-transport the sheet; a transport member (Fig. 5; via rollers 78 and 80) which is disposed in the sheet path upstream from the folding member to nip-transport the sheet; and a tip end guide member (Fig. 5; via adjustable 86) which is disposed in the sheet path upstream from the folding member (80 and 90) to restrict a position of a tip end of the sheet, a plurality of modes of folding can be applied on the sheet by moving the tip end guide member that is movable (Figs. 5A, 6A, and 7A)

Regarding claim 33: Viens discloses the sheet folding unit; a folding mode selecting device which can selectively cause the sheet folding unit to operate in a letter folding mode (column 4, lines 61-64; via 12); includes a plurality of folding mechanisms in the sheet path, at least one of the folding mechanisms includes a folding member (Fig. 5A; via roller 80 and 90) which is disposed in the sheet path to nip-transport the sheet; a transport member (Fig. 5; via rollers 78 and 80) which is disposed in the sheet path upstream from the folding member to nip-

Art Unit: 3721

transport the sheet; and a tip end guide member (Fig. 5; via adjustable 86) which is disposed in the sheet path upstream from the folding member (80 and 90) to restrict a position of a tip end of the sheet, a folding modes can be applied on the sheet by moving the tip end guide member that is movable (Figs. 5A, 6A, and 7A); wherein one of a plurality of folding modes can be applied on the sheet as the sheet proceeds along a single path (Figs. 5A, 6A, 7A, 8A, and 9A).

*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Viens (5,554,094).

Viens discloses a feeding mechanism nips the sheet that has subjected to skew correction by the skew correcting mechanism, by the transport member (via nip 76) and feeds the sheet that has been subjected to skew correction to the folding member (Figs. 5A and 5e; via 80 and 90). Viens does not disclose that setting a transportation speed of the transport member to a speed which is equal to or lower than a speed of the folding member. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Viens's folding apparatus by setting a transportation speed of the transport member to a speed which is equal to or lower than a speed of the folding member, as a matter of engineering design choice, since the examiner takes an official notice that having two different speed in same



Art Unit: 3721

apparatus such as the feeding speed different than the folding speed is old, well known, and available in the art, in order to improve and avoid any jam in the folding apparatus.

*Response to Arguments*

Applicant's arguments filed 09/20/2005 have been fully considered but they are not persuasive.

Applicant argues in page 14 of the arguments that Viens reference does not anticipate the present invention at least because Viens does not teach or suggest “a folding mode selecting device which selectively causes the sheet folding unit to operate in a letter folding mode,” and “a folding mode...wherein one of a plurality of folding modes is applied on the sheet as the sheet proceeds along a single sheet path,”. The examiner believes that such limitations are disclosed in Viens, via the folding mode 12 has the ability to work in three different modes as shown in Figs. 5B, 6B, 7B, 8B, and 9B; via by using different folding modes. Note that applicant did not claim an auto-folding mode selecting device, therefore the examiner believes that such folding station 12 could be consider as “a folding mode selecting device” as it is capable of folding the sheet into different folding shapes.

Applicant further argues that Viens does not disclose “a folding mode selecting device” that “selectively causes the sheet folding unit to operate in a letter folding mode.”; Viens teaches that an operator or user manually changes each folding apparatus. The examiner believes that as broadly claimed “a folding mode selecting device”, Viens folding station 12 could read on the claimed folding mode device, regardless to how it works as long as it is capable of folding the sheets to different modes.



Applicant further argues that Viens actually discloses three separate sheet folding apparatus 12 that have different folding sheet paths and the folding apparatus and their sheet paths are manually exchanged from one to another. The examiner believes that changing the folding mode manually or auto is not part of the claimed invention and since Viens folding station 12 is capable of selecting which folding mode to work on regardless to the way it is been done, therefore Viens reads on the claimed “a folding mode selecting device”.

Applicant further argues that the present invention, the letter Z-folding, letter C-folding, and Z-folding of sheets require only a single configured sheet path. The examiner believes that applicant is arguing about the single folding path capable of folding the sheets to Z and C-folds, such arguments are not disclosed on the claims.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 3721

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sameh H. Tawfik whose telephone number is 571-272-4470. The examiner can normally be reached on Tuesday - Friday from 8:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi Rada can be reached on 571-272-4467. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sameh H. Tawfik  
Patent Examiner  
Art Unit 3721

A handwritten signature in black ink, appearing to read 'Sameh', followed by a long, sweeping horizontal line that extends to the right.

ST.